Keywan Riahi

List of Publications by Citations

198 papers	37,400 citations	72 h-index	193 g-index
230 ext. papers	45,337 ext. citations	12.7 avg, IF	7.09 L-index

#	Paper	IF	Citations
198	The representative concentration pathways: an overview. *Climatic Change*, **2011**, 109, 5-31	4.5	4540
197	The next generation of scenarios for climate change research and assessment. *Nature*, **2010**, 463, 747-56	50.4	4304
196	The RCP greenhouse gas concentrations and their extensions from 1765 to 2300. *Climatic Change*, **2011**, 109, 213-241	4.5	2343
195	Historical (1850–2000) gridded anthropogenic and biomass burning emissions of reactive gases and aerosols: methodology and application. *Atmospheric Chemistry and Physics*, **2010**, 10, 7017-7039	6.8	1724
194	RCP 8.5—A scenario of comparatively high greenhouse gas emissions. *Climatic Change*, **2011**, 109, 33-57	4.5	1707
193	Paris Agreement climate proposals need a boost to keep warming well below 2 °C. *Nature*, **2016**, 534, 631-9	50.4	1652
192	The Shared Socioeconomic Pathways and their energy, land use, and greenhouse gas emissions implications: An overview. *Global Environmental Change*, **2017**, 42, 153-168	10.1	1479
191	A new scenario framework for climate change research: the concept of shared socioeconomic pathways. *Climatic Change*, **2014**, 122, 387-400	4.5	1160
190	The roads ahead: Narratives for shared socioeconomic pathways describing world futures in the 21st century. *Global Environmental Change*, **2017**, 42, 169-180	10.1	963
189	Harmonization of land-use scenarios for the period 1500–2100: 600 years of global gridded annual land-use transitions, wood harvest, and resulting secondary lands. *Climatic Change*, **2011**, 109, 117-161	4.5	883
188	The Scenario Model Intercomparison Project (ScenarioMIP) for CMIP6. *Geoscientific Model Development*, **2016**, 9, 3461-3482	6.3	814
187	Scenarios of long-term socio-economic and environmental development under climate stabilization. *Technological Forecasting and Social Change*, **2007**, 74, 887-935	9.5	771
186	Evolution of anthropogenic and biomass burning emissions of air pollutants at global and regional scales during the 1980–2010 period. *Climatic Change*, **2011**, 109, 163-190	4.5	623
185	The hydrogen economy in the 21st century: a sustainable development scenario. *International Journal of Hydrogen Energy*, **2003**, 28, 267-284	6.7	592
184	Energy system transformations for limiting end-of-century warming to below 1.5 °C. *Nature Climate Change*, **2015**, 5, 519-527	21.4	541
183	Scenarios towards limiting global mean temperature increase below 1.5 °C. *Nature Climate Change*, **2018**, 8, 325-332	21.4	456
182	A low energy demand scenario for meeting the 1.5 °C target and sustainable development goals without negative emission technologies. *Nature Energy*, **2018**, 3, 515-527	62.3	428

181	Land-use futures in the shared socio-economic pathways. *Global Environmental Change*, **2017**, 42, 331-345	10.1	399
180	A new scenario framework for Climate Change Research: scenario matrix architecture. *Climatic Change*, **2014**, 122, 373-386	4.5	371
179	The marker quantification of the Shared Socioeconomic Pathway 2: A middle-of-the-road scenario for the 21st century. *Global Environmental Change*, **2017**, 42, 251-267	10.1	349
178	Global and regional evolution of short-lived radiatively-active gases and aerosols in the Representative Concentration Pathways. *Climatic Change*, **2011**, 109, 191-212	4.5	334
177	Power-generation system vulnerability and adaptation to changes in climate and water resources. *Nature Climate Change*, **2016**, 6, 375-380	21.4	333
176	Household cooking with solid fuels contributes to ambient PM2.5 air pollution and the burden of disease. *Environmental Health Perspectives*, **2014**, 122, 1314-20	8.4	299
175	The role of technology for achieving climate policy objectives: overview of the EMF 27 study on global technology and climate policy strategies. *Climatic Change*, **2014**, 123, 353-367	4.5	284
174	Emission pathways consistent with a 2 °C global temperature limit. *Nature Climate Change*, **2011**, 1, 413-418	21.4	234
173	Global emissions pathways under different socioeconomic scenarios for use in CMIP6: a dataset of harmonized emissions trajectories through the end of the century. *Geoscientific Model Development* , **2019**, 12, 1443-1475	6.3	224
172	The feasibility of low CO2 concentration targets and the role of bio-energy with carbon capture and storage (BECCS). *Climatic Change*, **2010**, 100, 195-202	4.5	224
171	Locked into Copenhagen pledges Implications of short-term emission targets for the cost and feasibility of long-term climate goals. *Technological Forecasting and Social Change*, **2015**, 90, 8-23	9.5	222
170	Residual fossil CO2 emissions in 1.5 °C pathways. *Nature Climate Change*, **2018**, 8, 626-633	21.4	219
169	Energy investment needs for fulfilling the Paris Agreement and achieving the Sustainable Development Goals. *Nature Energy*, **2018**, 3, 589-599	62.3	207
168	Probabilistic cost estimates for climate change mitigation. *Nature*, **2013**, 493, 79-83	50.4	207
167	Differences between carbon budget estimates unravelled. *Nature Climate Change*, **2016**, 6, 245-252	21.4	183
166	A proposal for a new scenario framework to support research and assessment in different climate research communities. *Global Environmental Change*, **2012**, 22, 21-35	10.1	182
165	Future air pollution in the Shared Socio-economic Pathways. *Global Environmental Change*, **2017**, 42, 346-358	10.1	175
164	Determinants of household energy consumption in India. *Energy Policy*, **2010**, 38, 5696-5707	7.2	171

163	A new scenario framework for climate change research: the concept of shared climate policy assumptions. *Climatic Change*, **2014**, 122, 401-414	4.5	170
162	Connecting the sustainable development goals by their energy inter-linkages. *Environmental Research Letters*, **2018**, 13, 033006	6.2	168
161	Shared Socio-Economic Pathways of the Energy Sector Quantifying the Narratives. *Global Environmental Change*, **2017**, 42, 316-330	10.1	165
160	A new scenario logic for the Paris Agreement long-term temperature goal. *Nature*, **2019**, 573, 357-363	50.4	153
159	Limited impact on decadal-scale climate change from increased use of natural gas. *Nature*, **2014**, 514, 482-5	50.4	151
158	A special issue on the RCPs. *Climatic Change*, **2011**, 109, 1-4	4.5	150
157	Harmonization of global land use change and management for the period 850 2100 (LUH2) for CMIP6. *Geoscientific Model Development*, **2020**, 13, 5425-5464	6.3	143
156	Zero emission targets as long-term global goals for climate protection. *Environmental Research Letters*, **2015**, 10, 105007	6.2	136
155	2020 emissions levels required to limit warming to below 2 C. *Nature Climate Change*, **2013**, 3, 405-412	21.4	132
154	Post-2020 climate agreements in the major economies assessed in the light of global models. *Nature Climate Change*, **2015**, 5, 119-126	21.4	132
153	A new scenario framework for climate change research: background, process, and future directions. *Climatic Change*, **2014**, 122, 363-372	4.5	126
152	Regional, national, and spatially explicit scenarios of demographic and economic change based on SRES. *Technological Forecasting and Social Change*, **2007**, 74, 980-1029	9.5	126
151	Energy security under de-carbonization scenarios: An assessment framework and evaluation under different technology and policy choices. *Energy Policy*, **2014**, 65, 743-760	7.2	125
150	Temperature increase of 21st century mitigation scenarios. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 15258-62	11.5	121
149	Comparison of top-down and bottom-up estimates of sectoral and regional greenhouse gas emission reduction potentials. *Energy Policy*, **2009**, 37, 5125-5139	7.2	117
148	Assessing the land resource-food price nexus of the Sustainable Development Goals. *Science Advances*, **2016**, 2, e1501499	14.3	116
147	Making or breaking climate targets: The AMPERE study on staged accession scenarios for climate policy. *Technological Forecasting and Social Change*, **2015**, 90, 24-44	9.5	109
146	Taking stock of national climate policies to evaluate implementation of the Paris Agreement. *Nature Communications*, **2020**, 11, 2096	17.4	108

145	Carbon lock-in through capital stock inertia associated with weak near-term climate policies. *Technological Forecasting and Social Change*, **2015**, 90, 62-72	9.5	107
144	Climate policies can help resolve energy security and air pollution challenges. *Climatic Change*, **2013**, 119, 479-494	4.5	105
143	Global exposure and vulnerability to multi-sector development and climate change hotspots. *Environmental Research Letters*, **2018**, 13, 055012	6.2	100
142	Fossil resource and energy security dynamics in conventional and carbon-constrained worlds. *Climatic Change*, **2014**, 123, 413-426	4.5	99
141	2 °C and SDGs: united they stand, divided they fall?. *Environmental Research Letters*, **2016**, 11, 034022	6.2	99
140	Improving the behavioral realism of global integrated assessment models: An application to consumers' vehicle choices. *Transportation Research, Part D: Transport and Environment*, **2017**, 55, 322-342	6.4	97
139	Technological learning for carbon capture and sequestration technologies. *Energy Economics*, **2004**, 26, 539-564	8.3	97
138	Pathways to achieve universal household access to modern energy by 2030. *Environmental Research Letters*, **2013**, 8, 024015	6.2	96
137	Stranded on a low-carbon planet: Implications of climate policy for the phase-out of coal-based power plants. *Technological Forecasting and Social Change*, **2015**, 90, 89-102	9.5	93
136	WHAT DOES THE 2°C TARGET IMPLY FOR A GLOBAL CLIMATE AGREEMENT IN 2020? THE LIMITS STUDY ON DURBAN PLATFORM SCENARIOS. *Climate Change Economics*, **2013**, 04, 1340008	0.9	89
135	Future capacity growth of energy technologies: are scenarios consistent with historical evidence?. *Climatic Change*, **2013**, 118, 381-395	4.5	83
134	Better air for better health: Forging synergies in policies for energy access, climate change and air pollution. *Global Environmental Change*, **2013**, 23, 1122-1130	10.1	79
133	Achievements and needs for the climate change scenario framework. *Nature Climate Change*, **2020**, 1-11	21.4	79
132	The relationship between short-term emissions and long-term concentration targets. *Climatic Change*, **2011**, 104, 793-801	4.5	74
131	Land-based mitigation in climate stabilization. *Energy Economics*, **2012**, 34, 365-380	8.3	73
130	Pathways for balancing CO emissions and sinks. *Nature Communications*, **2017**, 8, 14856	17.4	72
129	A multi-model assessment of food security implications of climate change mitigation. *Nature Sustainability*, **2019**, 2, 386-396	22.1	71
128	Integrating Global Climate Change Mitigation Goals with Other Sustainability Objectives: A Synthesis. *Annual Review of Environment and Resources*, **2015**, 40, 363-394	17.2	71

127	Interaction of consumer preferences and climate policies in the global transition to low-carbon vehicles. *Nature Energy*, **2018**, 3, 664-673	62.3	69
126	Impacts of considering electric sector variability and reliability in the MESSAGE model. *Energy Strategy Reviews*, **2013**, 1, 157-163	9.8	68
125	Internalizing externalities of electricity generation: An analysis with MESSAGE-MACRO. *Energy Policy*, **2007**, 35, 815-827	7.2	67
124	Limited emission reductions from fuel subsidy removal except in energy-exporting regions. *Nature*, **2018**, 554, 229-233	50.4	66
123	Transport electrification: A key element for energy system transformation and climate stabilization. *Climatic Change*, **2014**, 123, 651-664	4.5	66
122	Analysing interactions among Sustainable Development Goals with Integrated Assessment Models. *Global Transitions*, **2019**, 1, 210-225	8.4	65
121	The MESSAGE Integrated Assessment Model and the ix modeling platform (ixmp): An open framework for integrated and cross-cutting analysis of energy, climate, the environment, and sustainable development. *Environmental Modelling and Software*, **2019**, 112, 143-156	5.2	64
120	Understanding the origin of Paris Agreement emission uncertainties. *Nature Communications*, **2017**, 8, 15748	17.4	63
119	Gas hydrates: entrance to a methane age or climate threat?. *Environmental Research Letters*, **2009**, 4, 034007	6.2	60
118	Prospects for carbon capture and sequestration technologies assuming their technological learning. *Energy*, **2004**, 29, 1309-1318	7.9	60
117	Climate model projections from the Scenario Model Intercomparison Project (ScenarioMIP) of CMIP6. *Earth System Dynamics*, **2021**, 12, 253-293	4.8	60
116	Greenhouse Gas Emissions in a Dynamics-as-Usual Scenario of Economic and Energy Development. *Technological Forecasting and Social Change*, **2000**, 63, 175-205	9.5	58
115	Energy sector water use implications of a 2 °C climate policy. *Environmental Research Letters*, **2016**, 11, 034011	6.2	58
114	A multi-model assessment of the co-benefits of climate mitigation for global air quality. *Environmental Research Letters*, **2016**, 11, 124013	6.2	57
113	An energy vision: the transformation towards sustainability – interconnected challenges and solutions. *Current Opinion in Environmental Sustainability*, **2012**, 4, 18-34	7.2	57
112	Misrepresentation of the IPCC CO2 emission scenarios. *Nature Geoscience*, **2010**, 3, 376-377	18.3	57
111	Implications of delayed participation and technology failure for the feasibility, costs, and likelihood of staying below temperature targets—Greenhouse gas mitigation scenarios for the 21st century. *Energy Economics*, **2009**, 31, S94-S106	8.3	57
110	Policy trade-offs between climate mitigation and clean cook-stove access in South Asia. *Nature Energy*, **2016**, 1,	62.3	56

109	Mapping the climate change challenge. *Nature Climate Change*, **2016**, 6, 663-668	21.4	54
108	Methanol production by gasification using a geographically explicit model. *Biomass and Bioenergy*, **2009**, 33, 745-751	5.3	52
107	Environmental Modeling and Methods for Estimation of the Global Health Impacts of Air Pollution. *Environmental Modeling and Assessment*, **2012**, 17, 613-622	2	51
106	THE DISTRIBUTION OF THE MAJOR ECONOMIES' EFFORT IN THE DURBAN PLATFORM SCENARIOS. *Climate Change Economics*, **2013**, 04, 1340009	0.9	51
105	Mitigation implications of midcentury targets that preserve long-term climate policy options. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 1011-6	11.5	51
104	Global resource potential of seasonal pumped hydropower storage for energy and water storage. *Nature Communications*, **2020**, 11, 947	17.4	50
103	Improving poverty and inequality modelling in climate research. *Nature Climate Change*, **2017**, 7, 857-862	21.4	50
102	ENERGY INVESTMENTS UNDER CLIMATE POLICY: A COMPARISON OF GLOBAL MODELS. *Climate Change Economics*, **2013**, 04, 1340010	0.9	50
101	The impact of near-term climate policy choices on technology and emission transition pathways. *Technological Forecasting and Social Change*, **2015**, 90, 73-88	9.5	49
100	Downscaling socioeconomic and emissions scenarios for global environmental change research: a review. *Wiley Interdisciplinary Reviews: Climate Change*, **2010**, 1, 393-404	8.4	49
99	Implications of alternative metrics for global mitigation costs and greenhouse gas emissions from agriculture. *Climatic Change*, **2013**, 117, 677-690	4.5	46
98	The UN's 'Sustainable Energy for All' initiative is compatible with a warming limit of 2 °C. *Nature Climate Change*, **2013**, 3, 545-551	21.4	45
97	Impact of short-lived non-CO 2 mitigation on carbon budgets for stabilizing global warming. *Environmental Research Letters*, **2015**, 10, 075001	6.2	44
96	Synergies in the Asian energy system: Climate change, energy security, energy access and air pollution. *Energy Economics*, **2012**, 34, S470-S480	8.3	44
95	Comparison between seasonal pumped-storage and conventional reservoir dams from the water, energy and land nexus perspective. *Energy Conversion and Management*, **2018**, 166, 385-401	10.6	42
94	Assessment of emissions scenarios revisited. *Environmental Economics and Policy Studies*, **2006**, 7, 137-173	2.2	42
93	Air-pollution emission ranges consistent with the representative concentration pathways. *Nature Climate Change*, **2014**, 4, 446-450	21.4	41
92	Air Quality Improvement Co-benefits of Low-Carbon Pathways toward Well Below the 2 °C Climate Target in China. *Environmental Science & Technology*, **2019**, 53, 5576-5584	10.3	40

91	Carbon budgets and energy transition pathways. *Environmental Research Letters*, **2016**, 11, 075002	6.2	39
90	Climate extremes, land-climate feedbacks and land-use forcing at 1.5°C. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2018**, 376,	3	38
89	IPCC Sres Revisited: A Response. *Energy and Environment*, **2003**, 14, 187-214	2.4	38
88	Assessing the Feasibility of Global Long-Term Mitigation Scenarios. *Energies*, **2017**, 10, 89	3.1	37
87	Technology Dynamics and Greenhouse Gas Emissions Mitigation. *Technological Forecasting and Social Change*, **2000**, 63, 231-261	9.5	37
86	Comparison and interactions between the long-term pursuit of energy independence and climate policies. *Nature Energy*, **2016**, 1,	62.3	36
85	A Continental-Scale Hydroeconomic Model for Integrating Water-Energy-Land Nexus Solutions. *Water Resources Research*, **2018**, 54, 7511-7533	5.4	34
84	Mid- and long-term climate projections for fragmented and delayed-action scenarios. *Technological Forecasting and Social Change*, **2015**, 90, 257-268	9.5	33
83	A hybrid modelling approach to develop scenarios for China's carbon dioxide emissions to 2050. *Energy Policy*, **2013**, 59, 614-632	7.2	31
82	Low-emission pathways in 11 major economies: comparison of cost-optimal pathways and Paris climate proposals. *Climatic Change*, **2017**, 142, 491-504	4.5	30
81	Emissions Scenarios: A Final Response. *Energy and Environment*, **2004**, 15, 11-24	2.4	30
80	Quantifying uncertainties influencing the long-term impacts of oil prices on energy markets and carbon emissions. *Nature Energy*, **2016**, 1,	62.3	29
79	Comparing future patterns of energy system change in 2 °C scenarios with historically observed rates of change. *Global Environmental Change*, **2015**, 35, 436-449	10.1	29
78	Global and Regional Greenhouse Gas Emissions Scenarios. *Technological Forecasting and Social Change*, **2000**, 63, 335-371	9.5	29
77	Balancing clean water-climate change mitigation trade-offs. *Environmental Research Letters*, **2019**, 14, 014009	6.2	29
76	Income inequality projections for the Shared Socioeconomic Pathways (SSPs). *Futures*, **2019**, 105, 27-39	3.6	28
75	Integrated assessment of uncertainties in greenhouse gas emissions and their mitigation: Introduction and overview. *Technological Forecasting and Social Change*, **2007**, 74, 873-886	9.5	28
74	The Vulnerability, Impacts, Adaptation and Climate Services Advisory Board (VIACS AB v1.0) contribution to CMIP6. *Geoscientific Model Development*, **2016**, 9, 3493-3515	6.3	28

73	Inclusive climate change mitigation and food security policy under 1.5 °C climate goal. *Environmental Research Letters*, **2018**, 13, 074033	6.2	26
72	Mitigation Potential and Costs791-864		26
71	Mountain Gravity Energy Storage: A new solution for closing the gap between existing short- and long-term storage technologies. *Energy*, **2020**, 190, 116419	7.9	26
70	Co-designing Indus Water-Energy-Land Futures. *One Earth*, **2019**, 1, 185-194	8.1	24
69	Energy technology strategies for carbon dioxide mitigation and sustainable development. *Environmental Economics and Policy Studies*, **2000**, 3, 89-123	2.2	24
68	Mitigation choices impact carbon budget size compatible with low temperature goals. *Environmental Research Letters*, **2015**, 10, 075003	6.2	23
67	A methodology and implementation of automated emissions harmonization for use in Integrated Assessment Models. *Environmental Modelling and Software*, **2018**, 105, 187-200	5.2	23
66	National GHG emissions reduction pledges and 2°C: comparison of studies. *Climate Policy*, **2012**, 12, 356-377	3.3	22
65	Energy Primer99-150		22
64	Climate and human development impacts on municipal water demand: A spatially-explicit global modeling framework. *Environmental Modelling and Software*, **2016**, 85, 266-278	5.2	21
63	The effect of financial constraints on energy-climate scenarios. *Energy Policy*, **2013**, 59, 562-572	7.2	20
62	The Role of Non-CO2 Greenhouse Gases in Climate Change Mitigation: Long-term Scenarios for the 21st Century. *Energy Journal*, **2006**, SI2006,	3.5	20
61	The NExus Solutions Tool (NEST) v1.0: an open platform for optimizing multi-scale energy–water–land system transformations. *Geoscientific Model Development*, **2020**, 13, 1095-1121	6.3	19
60	Energy Pathways for Sustainable Development1205-1306		19
59	First forcing estimates from the future CMIP6 scenarios of anthropogenic aerosol optical properties and an associated Twomey effect. *Geoscientific Model Development*, **2019**, 12, 989-1007	6.3	18
58	What do near-term observations tell us about long-term developments in greenhouse gas emissions?. *Climatic Change*, **2010**, 103, 635-642	4.5	18
57	The Scenario Model Intercomparison Project (ScenarioMIP) for CMIP6 **2016**,		18
56	Do governments have the right mix in their energy R&D portfolios?. *Carbon Management*, **2010**, 1, 79-87	3.3	17

55	Transboundary cooperation a potential route to sustainable development in the Indus basin. *Nature Sustainability*, **2021**, 4, 331-339	22.1	17
54	Non-Kyoto radiative forcing in long-run greenhouse gas emissions and climate change scenarios. *Climatic Change*, **2014**, 123, 511-525	4.5	16
53	Comparing transformation pathways across major economies. *Climatic Change*, **2020**, 162, 1787-1803	4.5	16
52	Accounting for finance is key for climate mitigation pathways. *Science*, **2021**, 372, 918-920	33.3	16
51	Global Supply of Biomass for Energy and Carbon Sequestration from Afforestation/Reforestation Activities. *Mitigation and Adaptation Strategies for Global Change*, **2006**, 11, 1003-1021	3.9	15
50	Planning for future energy resources. *Science*, **2003**, 300, 581-4; author reply 581-4	33.3	15
49	Harmonization of Global Land-Use Change and Management for the Period 850–2100 (LUH2) for CMIP6 **2020**,		15
48	Integrated Solutions for the Water-Energy-Land Nexus: Are Global Models Rising to the Challenge?. *Water (Switzerland)*, **2019**, 11, 2223	3	14
47	Quantifying the potential for reservoirs to secure future surface water yields in the world's largest river basins. *Environmental Research Letters*, **2018**, 13, 044026	6.2	14
46	Probabilistic temperature change projections and energy system implications of greenhouse gas emission scenarios. *Technological Forecasting and Social Change*, **2007**, 74, 936-961	9.5	14
45	Future nuclear perspectives based on MESSAGE integrated assessment modeling. *Energy Strategy Reviews*, **2013**, 1, 223-232	9.8	13
44	A comparison of low carbon investment needs between China and Europe in stringent climate policy scenarios. *Environmental Research Letters*, **2019**, 14, 054017	6.2	12
43	Long-term scenarios for black and organic carbon emissions. *Journal of Integrative Environmental Sciences*, **2005**, 2, 205-216		11
42	Cost and attainability of meeting stringent climate targets without overshoot. *Nature Climate Change*, **2021**, 11, 1063-1069	21.4	11
41	Energy system developments and investments in the decisive decade for the Paris Agreement goals. *Environmental Research Letters*, **2021**, 16, 074020	6.2	11
40	A short note on integrated assessment modeling approaches: Rejoinder to the review of "Making or breaking climate targets – The AMPERE study on staged accession scenarios for climate policy" *Technological Forecasting and Social Change*, **2015**, 99, 273-276	9.5	10
39	Towards fossil-based electricity systems with integrated CO2 capture: Implications of an illustrative long-term technology policy **2005**, 921-929		10
38	A framework for national scenarios with varying emission reductions. *Nature Climate Change*, **2021**, 11, 472-480	21.4	10

37	Long history of IAM comparisons. *Nature Climate Change*, **2015**, 5, 391-391	21.4	9
36	Decarbonization pathways and energy investment needs for developing Asia in line with well below 2°C. *Climate Policy*, **2020**, 20, 234-245	5.3	9
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34	Demography's role in sustainable development. *Science*, **2012**, 335, 918	33.3	8
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32	A multidimensional feasibility evaluation of low-carbon scenarios. *Environmental Research Letters*, **2021**, 16, 064069	6.2	8
31	Taking some heat off the NDCs? The limited potential of additional short-lived climate forcers' mitigation. *Climatic Change*, **2020**, 163, 1443-1461	4.5	8
30	Greenhouse gas emissions from global cities under SSP/RCP scenarios, 1990 to 2100. *Global Environmental Change*, **2022**, 73, 102478	10.1	7
29	Achieving a Sustainable Global Energy System **2004**,		7
28	Global roll-out of comprehensive policy measures may aid in bridging emissions gap. *Nature Communications*, **2021**, 12, 6419	17.4	6
27	Impact of methane and black carbon mitigation on forcing and temperature: a multi-model scenario analysis. *Climatic Change*, **2020**, 163, 1427-1442	4.5	6
26	Long-term performance targets for nuclear energy. Part 2: Markets and learning rates. *International Journal of Global Energy Issues*, **2008**, 30, 77	0.3	5
25	Future aerosol emissions: a multi-model comparison. *Climatic Change*, **2016**, 138, 13-24	4.5	5
24	Global emissions pathways under different socioeconomic scenarios for use in CMIP6: a dataset of harmonized emissions trajectories through the end of the century **2018**,		5
23	Beyond Rio: Sustainable energy scenarios for the 21st century. *Natural Resources Forum*, **2012**, 36, 215-230	2.2	4
22	Climate model projections from the Scenario Model Intercomparison Project (ScenarioMIP) of CMIP6		4
21	Land-based implications of early climate actions without global net-negative emissions. *Nature Sustainability*,	22.1	4
20	Decent living gaps and energy needs around the world. *Environmental Research Letters*, **2021**, 16, 095006	6.2	4

19	The Nexus Solutions Tool (NEST): An open platform for optimizing multi-scale energy-water-land system transformations **2019**,		3
18	Long-term performance targets for nuclear energy. Part 1: The global scenario context. *International Journal of Global Energy Issues*, **2008**, 30, 28	0.3	3
17	Climate-Land-Energy-Water Nexus Models Across Scales: Progress, Gaps and Best Accessibility Practices. *Frontiers in Environmental Science*, **2021**, 9,	4.8	3
16	Risk Hedging Strategies Under Energy System and Climate Policy Uncertainties. *Profiles in Operations Research*, **2013**, 435-474	1	3
15	Net zero-emission pathways reduce the physical and economic risks of climate change. *Nature Climate Change*, **2021**, 11, 1070-1076	21.4	2
14	Importance of Technological Change and Spillovers in Long-Term Climate Policy. *Energy Journal*, **2006**, SI2006,	3.5	2
13	Reply to: Why fossil fuel producer subsidies matter. *Nature*, **2020**, 578, E5-E7	50.4	2
12	Integrated Climate-Change Assessment Scenarios and Carbon Dioxide Removal. *One Earth*, **2020**, 3, 166-172	8.1	2
11	The Vulnerability, Impacts, Adaptation, and Climate Services (VIACS) Advisory Board for CMIP6 **2016**,		2
10	COVID-19 impacts on energy demand can help reduce long-term mitigation challenge		2
9	Lift Energy Storage Technology: A solution for decentralized urban energy storage. *Energy*, **2022**, 124102	7.9	2
8	Defining a sustainable development target space for 2030 and 2050. *One Earth*, **2022**, 5, 142-156	8.1	1
7	Regional Low-Emission Pathways from Global Models. *SSRN Electronic Journal*,	1	1
6	Using large ensembles of climate change mitigation scenarios for robust insights. *Nature Climate Change*, **2022**, 12, 428-435	21.4	1
5	Role of energy storage in energy and water security in Central Asia. *Journal of Energy Storage*, **2022** , 50, 104587	7.8	1
4	Technology Portfolios: Modelling Technological Uncertainty and Innovation Risks89-102		0
3	Balancing smart irrigation and hydropower investments for sustainable water conservation in the Indus basin. *Environmental Science and Policy*, **2022**, 135, 147-161	6.2	0
2	Gas infrastructures and the environment in Eurasia in a dynamics-as-usual scenario. *International Journal of Global Energy Issues*, **2002**, 18, 44	0.3	

List of Publications

1 Greenhouse Gas Emissions, Alternative Scenarios of **2004**, 67-76